

A HISTORY OF MARINE FIGHTER ATTACK SQUADRON 321



HISTORY AND MUSEUMS DIVISION
HEADQUARTERS, U.S. MARINE CORPS
WASHINGTON, D.C.

A McDonnell-Douglas F-4S Phantom flies over the nation's capital. The F-4S carries the low visibility camouflage scheme which had been the standard in the 1980s. (Photo courtesy of Capt Tom Dunlavage, USMCR)

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by
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Foreword

This historical monograph is one of a series of active duty and Reserve squadron histories. When completed, the series will cover each squadron in the Fleet Marine Force. This volume highlights the significant activities of Marine Fighter Attack Squadron 321 during its more than 40 years of active and Reserve service. Since its commissioning in February 1943, the squadron has evolved from a group of inexperienced wartime pilots flying F4U Corsairs to today's Reservists in their F/A-18 Hornets.

Commander Peter Mersky is a graduate of the Rhode Island School of Design with a baccalaureate degree in illustration. He was commissioned in the Navy through Air Officer Candidate School in May 1968. Following active duty, he remained in the Naval Reserve and served two tours as an air intelligence officer with Light Photographic Squadron 306, one of the Navy's two last Crusader squadrons.

Commander Mersky currently serves as assistant editor for *Approach*, the Navy's safety magazine, published by the Naval Safety Center in Norfolk, Virginia. He also has written or coauthored several works on Navy and Marine Corps aviation, including *The Naval Air War in Vietnam*, with Norman Polmar; *U.S. Marine Corps Aviation, 1912-Present*; and numerous magazine articles in both American and British publications.

In the pursuit of accuracy and objectivity, the History and Museums Division welcomes comments on this monograph from key participants, Marine Corps activities, and interested individuals.



E. H. SIMMONS
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Preface

During World War II, Marine Fighting Squadron (VMF) 321 enjoyed a brief, but successful, career as one of the many such units which contributed to the Allied victory in the Pacific. However, where many of its sister squadrons eventually disappeared during the postwar demobilization, VMF-321 was reborn at Naval Station Anacostia on the outskirts of the nation's capital as the first Marine Air Reserve fighter squadron, a role in which it continues to the present day.

The Reservist's role—whatever his service, but especially that of the air Reservist—is sometimes hard for the regulars and civilian population to understand, much less appreciate. While on the face of it, the Reservist appears to have the best of both worlds, he treads a thin line between his normal civilian job and family life, and his dedicated participation in his country's defense. Even though the air Reservist obviously enjoys continuing his association with military aviation, and is well paid for his time and accumulated skills, he knows he may be called upon during national crises. Such was the case during World War II and Korea. Many Reservists paid the ultimate price for their dedication; others stood by ready to fill in when called.

During the volatile 1970s and 1980s, and even during the upcoming, uncertain 1990s—which, as this history is being written, has already seen the beginning of what promises to be the largest mobilization of America's military reserves since Korea—Marine Air Reservists continue to train, honing their skills, hoping they will never have to use them in earnest, but remaining ready if needed. VMFA-321 is a prime example of a Marine Air Reserve fighter attack squadron, taking pride in its long heritage and exciting future.

As a Naval Air Reservist at NAF Washington, D.C., I became familiar with VMFA-321, arriving just before it traded its F-8 Crusaders for F-4 Phantoms. On occasion, I was fortunate to fly with these dedicated Marine aviators and I remained impressed with their skills and belief in themselves, their squadron, and its mission.

Many people have helped with various stages of this project. Members of the staff of the Marine Corps History and Museums Division provided resources and encouragement. A grant from the Marine Corps Historical Foundation helped to defray the cost of research and photographic acquisition. In preparing the manuscript for publication, Mr. Charles R. Smith assisted in the final editing and captioning of the illustrations, Mrs. Catherine A. Kerns typeset the manuscript and collateral materials, and Mr. William S. Hill completed the design and layout of the history. Current and past members of VMFA-321, including former commanding officers such as Colonel David Gould, USMCR (Ret), have also helped in telling their squadron's story.



Peter B. Mersky
Commander, U.S. Naval Reserve

Table of Contents

Foreword	iii
Preface	v
Table of Contents	vii
Chapter 1 Formation and World War II Combat Operations	1
Chapter 2 Rebirth as a Reserve Squadron	10
Chapter 3 Korea: Impact and Individual Member Service	15
Chapter 4 Anacostia to Andrews: Props to Jets	19
Chapter 5 The Phantom Era	25
Chapter 6 The 1980s and Beyond	32
Notes	39
Appendix A: Chronology	40
Appendix B: Commanding Officers	41
Appendix C: Honors	42
Appendix D: Squadron Insignia	43



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Maj Edmund F. Overend, a highly-decorated former member of Claire L. Chennault's Flying Tigers, commanded VMF-321 from September 1943 to September 1944. While in command, he downed three Japanese planes, bringing his wartime total to nine.

CHAPTER 1

Formation and World War II Combat Operations

Marine Fighting Squadron 321 (VMF-321) was commissioned on 1 February 1943 at the Marine Corps Air Station, Cherry Point, North Carolina, and assigned to Marine Aircraft Group 31, 3d Marine Aircraft Wing. The first commanding officer was Major (now retired Colonel) Gordon H. Knott. Recalling those first days, he wrote:

The squadron was formed by a small group of fighter pilots and six single-seat trainers in which we practiced formation flying, aerobatics, and gunnery. After three or four months, we received a few brand-new F4U-1 Corsairs that were full of new-plane problems.

Because of the urgency of getting the squadron ready for deployment, pilots were assigned who were trained only in "big boats," or seaplanes. There were many problems and accidents because of this sudden transition of these pilots.¹

Because most of the pilots were inexperienced, they were sent to Oak Grove, North Carolina, on 19 May, for four months of intensive training in tactics and combat maneuvers in the Corsair. Near the end of the training period, the squadron's more seasoned pilots were transferred to VMF-311, the squadron scheduled to deploy ahead of 321. However, as Colonel Knott continued:

The deployment date for VMF-321 was advanced to the same date as 311 and more "big boat" pilots arrived to fill 321's complement. We finally received our last Corsairs in the afternoon before we left for the West Coast. Four of these brand-new aircraft had leaky fuel tanks. Several pilots were killed in a storm over Texas during the flight to the West Coast.

Upon reaching our destination, all planes were sent to the Marine Service Squadron for over a month of repairs. It was one hell of a way to get ready to fight a war!²

The squadron was reassigned to the 4th Marine Aircraft Wing, and when VMF-321 reached San Diego, California, on 29 September, Major Edmund F. Overend took command. He had seen action with the American Volunteer Group (AVG), the Flying Tigers, in China, and was an ace with six Japanese planes to his credit. His arrival was the inspiration and morale boost the squadron needed as it left for combat on board the *Nassau* (CVHE-16). Major Overend would claim three more kills during his tour.

The F4U Chance-Vought Corsair was a single-seat, low-wing monoplane powered by a 2,000 hp Pratt & Whitney engine. The aircraft could climb to over 35,000 feet and was the first American fighter capa-

ble of speeds over 400 mph. It became the standard Marine fighter during the last two years of World War II, and also saw considerable service during the Korean War of 1950-53.

When the squadron left San Diego, it did not have a nickname. Major Overend recalled his time with the Flying Tigers. The AVG had three squadrons: the Panda Bears, Adam & Eve, and the Hell's Angels. He suggested adopting the last name and the squadron quickly agreed.³

On the evening of Saturday, 1 October, on board the *Nassau*, Major Overend entertained his men with his experiences in the AVG in China and Burma. He gave his pilots definite ideas about aerial combat. The following day, Major Overend interviewed each of his pilots regarding individual flight experience to determine what additional training each aviator needed.

The *Nassau* reached Samoa on 6 October, and began launching Douglas Dauntless scout bombers (SBD) in the late afternoon. VMF-321's personnel—some of whom were already on shore—watched the proceedings to reassure themselves that when their turn came the next day, all would go well. After the SBDs launched, VMF-321 set up camp ashore eight miles from the port at Pago Pago. By nightfall, all officers and men were settled in and ready for the next day.

On 7 October, with 17 Corsairs to be launched, pilots were assigned duties on shore concerning unloading squadron gear. The carrier was moored to the dock where the prevailing wind was 90 degrees from starboard. At 1100, Major Overend launched in the first F4U with no difficulty. The rest of the squadron followed and landed at Tafuna Airfield without incident.

Lieutenant Colonel Robert M. Keim was a first lieutenant with VMF-321 in 1943. He remembered this unloading:

When we arrived in Samoa, the jeep carrier tied up to the dock in a very small, narrow harbor. Instead of unloading the F4Us and SBDs and dragging them through the town to the airfield, we decided to catapult them off. The charts indicated we would be shot off below stall speed. Our skipper didn't believe the charts, so he said, "I'll try it. If I make it, the rest of you follow." He not only made it, but the entire ship was unloaded in this fashion in short order, without incident—except for a few tailwheels dragged through the water!⁴



Marine Corps Historical Collection

1st Lt Robert M. Keim stands in front of his F4U-1 Corsair, dubbed the "Barbara G." after his wife, on Espiritu Santo. Lt Keim shared the aircraft with Capt Robert B. See, the squadron's only ace.

Five days later, on 12 October, VMF-321 lost its first aircraft in the Pacific. Returning from the first hop on the afternoon schedule, Second Lieutenant Robert W. Griffith nosed his plane over and onto its back during a landing attempt. He suffered a minor laceration of his scalp, but the F4U (17522) was written off. Lieutenant Griffith would even the account later by scoring one kill.

On 16 October, the rest of the squadron arrived. New pilots flew checkout and familiarization hops. Heavy rain kept operations to a minimum, but ground lectures filled in the schedule. Combined operations with scout bombers at British Samoa were flown whenever possible, although weather sometimes forced operations to be cancelled by early afternoon.

VMF-321 pilots were again in the air on 22 October, practicing strafing runs on an oil slick. The pilots were becoming proficient in tactics, but what hurt the squadron more than the enemy throughout the war were problems with aircraft maintenance. Although the maintenance personnel were the best, there were no spare parts, and with cargo ships arriving 10 days late, operations were below 50 percent. On 29 October, 8 of the squadron's 18 Corsairs were grounded due to tailwheel trouble.

On 1 November, Major Overend told the squadron that they would be leaving for Espiritu Santo on or about the 15th. They would leave their gear and air-

craft at Tafuna. Gunnery practice continued as did familiarization hops in SNJ trainers for the pilots who had not flown the F4Us at night. However, air operations remained limited due to the continued lack of spare parts. The squadron's cargo ship, *Santa Ana*, finally arrived on 8 November with spare parts, 59 days after leaving San Diego. Flight operations were secured on 10 November in preparation for the move to Espiritu.

At 0800, 15 November, squadron personnel set sail in the *Pocomoke* (AV-9) for the island of Efate, one of the islands in the New Hebrides, approximately 100 miles southwest of Espiritu. The *Pocomoke* crossed the equator on schedule at 1300, 18 November, and arrived at Efate on 20 November. The squadron lived near Quoin Hill Airfield. Major Overend announced that the squadron would stay at Efate for four to six weeks, then go on to the combat zone. VMF-321 divided itself into a flight echelon and a ground echelon. The flight echelon was composed of all pilots, plus the squadron doctor and intelligence officer. The ground echelon contained all other ground officers and enlisted men. When the flight echelon went to the combat zone, the ground echelon stayed at Efate and helped ground personnel from other squadrons. Later, the ground personnel would follow the flight group into the combat zone.

Since the squadron no longer had its aircraft, flight operations were suspended until one of the other units left Efate, leaving their aircraft for VMF-321. On 26 November, VMF-321 took over the Corsairs from a departing Marine squadron: "Flight operations began at 1400 today with the squadron using battle-scarred, old, worn out, generally poor F4Us."⁵ The squadron was divided into two wings; the left wing was led by the commanding officer, while the right wing was led by the executive officer. Each wing flew every other day so that 50 percent of the pilots would get flight time each day.

The squadron lost two planes on 29 November, but the pilots were rescued. First Lieutenant John R. Norman ditched right after takeoff on his second flight of the morning. At 500 feet, Lieutenant Norman's engine began throwing dense black smoke. In a few minutes, his engine seized and the propeller stopped turning. After ditching, he inflated his raft and clung to it until the field's J2F-3 Duck amphibian picked him up. The F4U (02262) sank in water too deep to be salvaged.

The second loss came when First Lieutenant John Shoden collided with another Corsair. First Lieutenant Shoden's controls were damaged and he bailed out



Marine Corps Historical Collection

Pilots of VMF-321 gather for a group photograph in December 1943, shortly before they began combat operations from Efate, then Vella Lavella and Bougainville.

over the water. It was an hour before a crash boat from Havannah Harbor picked him up.

Training continued in strafing, tactical maneuvers, cooperation and coordination with other aircraft, the value of intelligence for ground forces, and the harassment of the enemy. On Christmas Eve 1943, 321 moved to Vella Lavella and into the combat zone. One week later, they moved to Torokina strip on Bougainville. By then, they had recorded their first kill.

Anxious to see action, First Lieutenant Robert B. See got the first aerial victory when he shot down a Zero over St. George's Channel on 28 December. Lieutenant See eventually scored five kills to become the squadron's only ace. The squadron war diary described Lieutenant See's kill:

1st Lt R.B. See, at 17,000 feet, had a Zeke [the "Zeke" was the Allied codename for the Mitsubishi A6M Zero fighter, the premier Japanese aircraft of the war] pull up to the right, into range. See opened up at 500 feet, with 50 percent deflection. The intermediate gun on the left wing was the only one firing. [The Corsair had six .50-caliber machine guns mounted in the wings] A six-second burst hit the enemy aircraft in the rear left wing. There was a "big pop" explosion in his face for a second, then out. It appeared to be the left wing tanks. With the wing still intact, the Zero pulled over to the right and down, making a 200 ft smoke pot after hitting the water.⁶

In the same engagement, Major David Drucker dove on a Zero's tail and fired a five-second burst into the enemy fighter. The Zero spiraled down trailing smoke. Major Drucker tackled a second Zero, pumping 200 rounds into the Zeke which also nosed over and disappeared. Without confirmation of the destruction of the two Zeros, Major Drucker was credited with two probables.

No Japanese aircraft were seen for the remainder of December, but January 1944 belonged to Marine Corps fighters, including the Corsairs of the Hell's Angels. On 3 January 1944, VMF-321 pilots discovered that the tactics they had been using did not work as expected. Five aircraft from VMF-321 participated in the fighter sweep over Rabaul. Orbiting at 20,000 feet, First Lieutenant See noticed 12 Tonys (the Kawasaki Ki.61 fighter, powered with a liquid-cooled engine, unusual for Japanese aircraft) coming in from above at 21,000 feet at 8 o'clock. The F4Us did a rolling split-ess to either side. This type of evasive maneuver proved ineffective because the Corsairs were badly shot up.

First Lieutenant John R. Norman, from New Orleans, Louisiana, had most of the January limelight. On 23 January, while flying an FG-1 (a version of the F4U Corsair produced by Goodyear) from Bougain-

ville, Lieutenant Norman saw 20-25 Zeros, chased them, shot down four in only a few minutes, and escaped. The VMF-321 war diary recorded the action:

Lts. Norman and Talbot, at 26,000 feet. Sighted 20-25 Zekes over Duke of York [Island] at 18,000 ft. They dropped to 23,000 ft, observed 4 Zekes by themselves. Coming in from the rear, Lt. Norman got a short burst into fuselage and tail section of the rear Zeke of the formation, causing it to explode and go down in flames at approx. 1720. Climbing back to altitude again so as to stay between the sun and the Zeke, he made a second pass at a Zero, from 6 o'clock with altitude advantage. He observed his tracers to enter the fuselage from tail section, forward. The Zeke nosed down with the tail section aflame. After again gaining altitude to 23,000 ft. Lt. Norman attacked a third Zeke, firing a short burst into the left wing root, causing the left wing to snap off. The enemy a/c spiraled down, entirely out of control. In a similar manner, from an altitude advantage rear approach out of the sun, Lt. Norman with a short burst from 6 o'clock sighted tracers to rake back thru fuselage. The Zeke exploded bursting into flames as Lt. Norman passed underneath.⁷

The period of November 1943 through January 1944 was the heyday of Marine Corps Corsair squadrons. The Corsair, because of its design, was having trouble being accepted for carrier duty, and the land-based Marine fighter squadrons (as well as two Navy units—VF-12 and VF-17) took the plane into combat with spectacular results. The Bougainville-Vella Lavella area became the domain of Leatherneck Corsairs from which such aces as VMF-214's legendary leader, Major

1st Lt John R. Norman shot down four Japanese aircraft in one mission on 23 January 1944 for which he would receive the Distinguished Flying Cross. The squadron scoreboard displays 39 Japanese aircraft destroyed as of April 1944 and the Hell's Angels insignia.

Marine Corps Historical Collection



Gregory "Pappy" Boyington, flew. The Corsairs were used for fighter sweeps and escorting Army and Marine bombers, close air support being only in its early stages. With their fighters' range and speed, and traditional esprit, Marine pilots wrested control of the air from the Japanese. The squadron scored 34 confirmed victories and 11 probables in January; at least one kill or probable every day. This was somewhat offset by the loss of eight squadron Corsairs in combat.

Lieutenant Colonel Keim recalled his first combat over Rabaul on 2 January 1944:

On the first mission over Rabaul, we flew high roving cover because we were new and needed experience without getting too involved. On the second mission, we flew medium cover which is where the action started. After milling around for a while watching the Zeros coming up from the airfields below, I suddenly found myself on the tail of one Zero. I gave him a burst and saw pieces come flying off the aircraft, including the canopy which almost hit me. I dodged the debris and didn't hang around to see what happened to me. Score: one probable Zero.⁸

Japanese fighters nearly succeeded in shooting down Lieutenant Colonel Keim during one mission. He had chased several Zeros without getting into firing position. Suddenly, a stream of tracers shot past his cockpit; he had a Zero on his tail. The enemy plane was so close that his bullets were converging *in front* of Keim's Corsair. The Marine pilot did a quick split-ess and dove for the deck, exceeding both the airspeed and structural limits of his aircraft. The F4U held together and he returned home frightened but safe.

Lieutenant Colonel Keim recalled another mission on 24 January:

I flew a mission over Rabaul escorting B-25s. I shot at several Zeros but it was such a wild day I didn't even come close to hitting any of them. Then I realized that our fighters had headed for home and were disappearing over the horizon. I went full bore to catch up with them. About half-way out to the open sea, I saw a Zero chasing two Australian P-40s who were right down on the water. I went after the Zero and nailed him as he was pulling onto the tail of one of the P-40s. I followed the P-40s for a while and they seemed OK. I didn't see any more Zeros.

Then I saw a plane trailing smoke and closed in. It turned out to be a P-38 heading for home. But it was obvious he wouldn't make it. He did get out to the open sea and make a good water landing. He got into his raft and waved to me as I circled over him. I alerted the rescue unit and they relieved me in about 45 minutes. I returned to Bougainville and landed on fumes. I was so late that I had been reporting missing.

I felt pretty good about the mission until later in the day when the Australian squadron commander called me to see if I could help him discover what had happened to his two P-40s. For some reason, they had not made it back. Score: one Zero confirmed.⁹

The Hell's Angels' score sheet for January 1944

2Jan44	Fighter sweep over Rabaul.	5 kills/2 probables
3Jan44	Fighter sweep over Rabaul.	3 probables
4Jan44	Fighter sweep over Rabaul.	3 kills
5Jan44	Escort for 18 TBFs and 24 SBDs over Rabaul buildings and barges strafed. Hits on radio tower.	
6Jan44	Banu Harbor strafing run. Hits on gun emplacements, house, and barge.	
7Jan44	Escort SBDs and TBFs over Rabaul.	3 kills
9Jan44	High cover for TBFs over Rabaul.	2 kills/1 probable
14Jan44	Low cover for SBDs over Rabaul.	1 kill/2 probables
17Jan44	Escort SBDs to hit shipping in Simpson Harbor.	3 kills
18Jan44	Escort B-25s to Rabaul.	2 kills
20Jan44	Escort B-25s to Rabaul.	3 kills
22Jan44	Escort B-25s to Rabaul.	1 kills
23Jan44	Fighter sweep over Rabaul.	4 kills
23Jan44	Escort SBDs to Rabaul.	2 kills
24Jan44	Escort TBFs over Rabaul.	7 kills
27Jan44	Escort B-25s over Rabaul.	2 kills

First Lieutenant See, aside from Major Overend's previous victories with the AVG, was VMF-321's only ace. Lieutenant See scored one kill each on 28 December 1943 and 9 and 17 January 1944, and two kills on 20 January. His achievement was recorded in several newspapers. Sergeant Ralph Peck, a Marine Corps combat correspondent from Cincinnati, Ohio, wrote:

First Lieutenant Robert B. See, USMC, a Marine fighter pilot, got off on the right foot against the Japanese today.

The 22-year-old Marine flier shot down a Jap Zero during his first combat hop against the enemy in an aerial battle over Rabaul, a key Jap base on New Britain Island. He is a member of the new "Hell's Angels" fighter squadron which recently arrived in the South Pacific combat zone.

"The thrill of that first hop is one I'll always remember," said Lieutenant See. "I'll never forget the words of the flight leader as we reached our target. All he said was, 'Here they come up to meet us,' but that was enough to have me shaking in my boots. But there wasn't much time to be scared, because the Nips were coming in from all directions. I got off a few bursts at a few of them, but had no luck. I spotted one of our boys making a run on a Zero and dived down to offer a hand. As I dived, the Zero pulled up directly into my sights. I was darned lucky and plenty excited, too, because I nailed him on the first shot—with only one gun working. His left wing tank blew up and he rolled over on his back and crashed into the sea."¹⁰

Evidently, the press kept track of Lieutenant See be-

cause when he logged his fifth kill, Sergeant Harold Powell, a Marine Corps correspondent, filed this story:

Bougainville—Somewhere in the Solomons there is a very grateful divebomber gunner, according to a note received by First Lieutenant Robert B. See, Marine fighter pilot.

Returning from an escort flight of Navy and Marine torpedo and divebombers over Rabaul, the Marine flier reported he put some bursts into a Zero harassing a divebomber. He did not claim a kill because he did not see the Jap crash.

The following day, a note was delivered to the pilot by the anonymous gunner who thanked the flier for chasing the Jap away from his tail and shooting him down!

The note said he had seen the Zero crash. Credit for the enemy plane, verified by the gunner, brought Lieutenant See's total bag to three.

Recently, the San Francisco flier scored two more enemy fighters over Rabaul to become a Marine ace.

In that action, Lieutenant See was escorting Mitchell (B-25) bombers. Turning back to help his wingman who was being attacked by several Zeros, Lieutenant See found himself in the midst of 40 intercepting Japs.

"When I found the Zeros between myself and the Allied formation, I began shooting to keep them away. I was just bluffing but one Zero came zooming across my sights. I shot him from underneath."

With full throttle, he climbed for altitude. No Zeros attacked, but as a division of enemy fighters swung into view, Lieutenant See said he became "trigger happy."

"I exploded the last one with a firing run from the side. This drew all the Japs' attention. I was in a tight spot. Down



Marine Corps Historical Collection

A Marine Corsair takes off on a mission from Vella Lavella in November 1943. The aircraft's main landing gear has rotated nearly 90 degrees to lie horizontally in the wing wheelwells.

A Marine SBD Dauntless divebomber—the workhorse of the Pacific—takes off from Bougainville in December 1943. The island recently had been reclaimed from the Japanese.

Marine Corps Historical Collection





Marine Corps Historical Collection

As were many other American airfields in the Pacific, Torkina Field on Bougainville was literally cut out overnight from the dense jungle which surrounded Empress Augusta Bay.

they came. I didn't see anyone behind me but tracers suddenly punctured my cowling. I rolled to the right. At the same instant, a 20mm shell tore through my left wing. Diving and rolling, I somehow escaped. Before I knew it, I was back in friendly territory—and pretty thankful."

In the engagement, Lieutenant See's Corsair was punctured by 18 7.7mm shells, but he returned safely to base.¹¹

As the Allies advanced, the Solomons became a rear area, and VMF-321 left for an interim period at Sydney, Australia, for maintenance and a much-deserved rest. The squadron had enjoyed an enviable first tour. An unnamed pilot summed up their accomplishments. "During these sweeps and escorts, we scored a few sures, and probables each day." "But," as he continued "with other Marine squadrons such as VMF-211, -214, and -216, the daily score mounted until all of us knew the enemy was once again on the wrong side of the fence."

The squadron returned to Bougainville on 6 March 1944, and three weeks later transferred to Green Island, to bomb enemy shore installations. One raid was directly responsible for stopping Japanese attacks on the B-29 airfields on newly won Saipan. Soon, Japanese shipping lanes were empty and VMF-321

helped clear the Bismarck Archipelago area of the Japanese Air Force. The area was so quiet that the squadron's second combat tour failed to show any further contact with the enemy although 321 pilots flew 666 missions in 2,000 hours.

August 1944 found the squadron embarked on the *Kwajalein* (CVU-98) and the U.S. Army transport ship *Sea Fiddler* headed for Guam. The time at sea varied from 17 to 38 days, and all hands were finally reunited at West Field, Guam. While the pilots flew off *Kwajalein*, they dropped 1,000-pound bombs on the islands of Rota and Pagan.

On 17 December 1944, overseas duty ended for VMF-321 and the squadron was withdrawn from the combat zone and transferred to San Diego where it arrived in early 1945. Once in California, squadron personnel took 30 days leave, only to return to find they had been transferred to Marine Air Support Group 51 at Marine Corps Air Station Mojave. Flight operations began immediately with instrumentation and familiarization flights.

Major Justin Miller, Jr., commanding officer of

VMF-321 from October 1944 to March 1945, wrote about this period:

HQMC sent a young major to relieve me in December 1944. Unfortunately, he was killed on his fifth mission. In January 1945, the squadron received orders to go to Mojave to train in F6Fs which were going aboard fast carriers. HQMC expected VMF-321 to arrive at Mojave with pilots that had at least six months overseas experience. Unfortunately, they forgot to tell the wing, so, many pilots who had been away from combat for over a year transferred into VMF-321 for training.

VMF-321 in name only, as it was staffed mostly by pilots originally from VMF-217 and a few from VMF-216, sailed in USS Barnes [CVHE-20] for San Diego in early 1945. But there were many Marine fighter pilots from the East Coast who wanted to get into the fight before it was too late. Gradually, my pilots transferred out and I left to be XO of MAG-11.¹²

The squadron began to streamline itself in preparation for becoming carrier-based. One hundred and eighty-four enlisted Marines were transferred from the squadron on 1 March 1945, and, on 22 March, Major William Boland assumed command, bringing 32 pilots with him.

On 25 March 1945, Major Robert Owens, Jr., assumed command of Air Group 6, which was comprised of VMF-321, Marine Torpedo-Bombing Squadron 454, and Carrier Aircraft Service Detachment 6. The Corsairs which VMF-321 had flown throughout the war were replaced by 17 Grumman F6F-3 Hellcats. The new syllabus for carrier-based squadrons began with familiarization, instrument, tactical, and cross-country flights. Operational training included gunnery, bombing, strafing, rocket firing, search, night flying, and air support, along with field carrier landing practice (FCLP). By the end of April,

the squadron had completed 47 percent of the syllabus.

VMF-321 also completed carrier landing practice and went on board the *Matanikau* (CVE-101) for carrier landing qualifications on 25 May. All pilots had catapult shots early in the morning and each pilot made 12 to 17 landings. Air Group 6 made 602 carrier landings in one day without a mishap, including 451 landings by VMF-321. Back at Mojave, the squadron rushed to complete the syllabus, and on 16 June, it transferred to Marine Corps Air Station Santa Barbara, but remained under the administrative control of Marine Air Support Group (MASG) 51.

The next day, Air Group 6 flew to Tacoma, Washington, to attend the commissioning of the *Puget Sound* (CVE-113), the carrier to which the group had been assigned. The group squadrons flew in formation over the carrier during the ceremony.

One month later, on 17 July, VMF-321 transferred from Marine Air Support Group (MSG) 51 to *Puget Sound*. All hands attended fire fighter's school before the ship left for its shakedown cruise. The cruise lasted for two weeks and Air Group 6 made the first re-qualifications without incident. July and August included heavy training, alternated with periods ashore at Santa Barbara.

Major Darrell Irwin took command of the Hell's Angels on 7 September. By this time, of course, the war was over, the formal surrender having been signed on 2 September on board the battleship *Missouri* in Tokyo Bay. On 8 September, the *Puget Sound* sailed from San Diego for Naval Air Station Ford Island, Pearl Harbor. Arriving on 15 September, VMF-321 was transferred to Marine Air Support Group 44, 3d Marine

On their way home in February 1945, members of VMF-321 pose for a squadron photograph on the flight deck of the Barnes (CVHE 20) enroute to Guam. Maj Justin N. Miller, Jr., the squadron's commanding officer, is seated in the front row, fifth from the right.

Marine Corps Historical Collection



Aircraft Wing. The squadron was based at Marine Corps Air Station Ewa on Oahu for further training. Bombing, strafing and air support exercises were run during this two-week period. On 1 October, all personnel reported back on board the *Puget Sound* and the ship sailed for Tokyo.

When the *Puget Sound* left port, VMF-321 transferred to Marine Air Support Group 48. A simulated attack was made against Midway Island on 5 October. Army B-25s from Midway were intercepted by the squadron's combat air patrol when the bombers attacked the carrier.

The ship crossed the International Date Line on 6 October and on 14 October, *Puget Sound* dropped anchor in Tokyo Bay off Yokosuka. On 20 October, the carrier sailed from Tokyo Bay as a member of Carrier Task Unit 51.2.23, part of the Fifth Fleet. Squadrons from the carrier acted as air support for the U.S. Army's occupation landing forces at Nagoya. From 25-27 October, VMF-321 participated, with the rest of Air Group 6, in covering the landings. By 28 October, the *Puget Sound* had returned to Tokyo Bay. To keep their skills sharp, the Marine crews conducted flight operations off the Japanese coast.

VMF-321 transferred to Marine Air Support Group 44 on 10 October, and five days later, their carrier transferred to the Seventh Fleet. On 16 November, the ship got underway for Saipan in the Marianas, and on 17 November, Air Group 6 transferred to MASG-44 Headquarters. Arriving at Saipan on 20 November 1945, all aircraft were flown to Kobler Field, and training operations began immediately.

At this time, the *Puget Sound* belonged to TF 74.3, along with the *Siboney* (CVE-112), *Bairoko* (CVE-115), and four destroyer escorts. The small task force represented the only combat ready carrier force in the Pacific as it sailed for the China Sea. Squadron aircraft recovered on board the *Puget Sound* once the ship was at sea.

The task force anchored at San Fernando, Luzon,

the Philippines on 6 December. Three days later, as part of TF 72.1 (comprising the same ships), the force sailed for Hong Kong, arriving on 13 December. One week later, the task force sailed for Manila, arriving on 23 December. During this period of see-sawing back and forth, the task force conducted flight training operations. Second Lieutenant Leslie T. Howton, Jr. went in off the bow when the catapult ring on his plane's tailwheel assembly stretched, preventing his aircraft from attaining flight speed. His aircraft was the only operational loss suffered by VMF-321 during this time.

The task force reached Apra Harbor, Guam, on 5 January 1946, and picked up aircraft for the trip to Hawaii. *Puget Sound* arrived at Ford Island on 14 January and offloaded its aircraft, with another load being placed on board to be ferried to San Diego. On 17 January, with the personnel of VMF-321 as passengers, the carrier sailed for California, arriving on 23 January.

During the trip to San Diego, word came that VMF-321 was to be decommissioned. A news release from the *Puget Sound* read:

One of the highest regarded outfits in U.S. Marine Corps aviation is heading for decommissioning this month after establishing an enviable set of records by both individual members and as a unit. It is Marine Air Group 6, composed of VMF-321, commanded by Major Darrell Irwin, USMC, and Torpedo Squadron 454, under Major James Clark, USMC.¹⁸

The group's honors included the Asiatic-Pacific Campaign Streamer with two bronze stars and the other for the Bismarck Archipelago Operation (one star for the Consolidation of the Solomon Islands), and the Victory Streamer of World War II.

VMF-321 transferred to MCAS Miramar on 23 January and on the 28th, the squadron was decommissioned. All personnel transferred to Headquarters Personnel Group Marine Air West Coast and the squadron records were sent to Washington, D.C.

CHAPTER 2

Rebirth as a Reserve Squadron

As soon as word came that VMF-321 was going to be decommissioned, a group of Marine aviators in the Washington, D.C., area pushed to organize a reserve fighter squadron. The members came from the ranks of the pilots, mechanics and ground personnel who had served with the Hell's Angels in the Pacific. The new reserve squadron would be based at Naval Air Station (NAS) Anacostia on the eastern side of the Potomac River, across from the national capital.

The Organized Marine Air Reserve Program, commanded by Brigadier General Christian F. Schilt, sent out a call early in the summer of 1946 for Marine officers and men who would be willing to spend approximately three hours one Saturday a month flying or maintaining aircraft in a Reserve squadron. General Schilt, who had been decorated with the Medal of Honor in 1928 for service in Nicaragua, was tasked with forming 28 Marine Air Reserve squadrons from 1,150 pilots, 352 ground officers, and 7,000 enlisted men in the Marine Corps Reserve.

By late June 1946, VMF-321, along with 23 other Marine Air Reserve squadrons, had reported to General

Schilt that they had enough people to be operational. Los Alamitos, in California, had 65 percent of its squadrons' billets filled, while NAS Squantum, near Boston, Massachusetts, had 60 percent manning. Anacostia reported 30 percent. Most squadrons were running about 16 percent manned when VMF-321 was commissioned on 1 July 1946.

Even though the Organized Marine Air Reserve Program actually began in 1938, it did not look like a ready reserve until the postwar squadrons were commissioned. In an article, "America's Insurance For Peace . . . Sunday Fighter Pilots," newspaper writer Don Eddy wrote:

The Organized Marine Air Reserve Program originally was one of those things that happened too late, too little. It was first authorized in 1938. War struck before it really got started. Young men who should have been trained and ready through this program were, instead, inducted in the madhouse excitement of wartime and shuffled around like straws.¹⁴

When VMF-321 was recommissioned, it kept the nickname "Hell's Angels," but was officially called the

"Lake Anacostia" often formed behind Building 150, the air station's administration building, during heavy summer thunderstorms. Here 1st Lt Henry N. Shadid, left, and 1st Lt Robert C. McGee enjoy a little recreational boating after one such storm in June 1947.

Marine Corps Historical Collection





Marine Corps Historical Collection
1st Lt Emil Skocpol stands in front of his F4U Corsair in February 1949 at NAS Anacostia. The aircraft's four-bladed prop and apparently new tires are evident.

An F4U-4 Corsair of VMF-321 is parked at NAS Anacostia. The aircraft carries the characteristic orange band around the rear fuselage identifying it as a Reserve aircraft.

Marine Corps Historical Collection





Marine Corps Historical Collection

The newly reformed Marine Air Reserve's first important exercise occurred in August 1948 at Cherry Point. Anacostia Corsairs, with "AF" on their tails, take center stage.

In 1949, VMF-321 gave up its F4Us for Grumman F6F Hellcats and shortly thereafter, Grumman F8F Bearcats. Considered by many to be the ultimate prop fighter, the powerful little Bearcat could be demanding to fly. Three F8Fs of VMF-321 fly over the Capitol area, the Tidal Basin, and various monuments in 1950. The squadron soon relinquished its Bearcats to the hard-pressed French in Indochina (Vietnam), and went back to F4Us.

Marine Corps Historical Collection





Marine Corps Historical Collection

Members of the squadron line up around a Grumman F8F Bearcat. The aircraft's huge propeller and relatively short wings are evident in this 1949-era photograph.

bling block to the 'Hell's Angels' squadron in recruiting enlisted personnel" to complete the Marine Air Reserve squadron's complement of 164 men. "All those people below the rank of staff sergeant," the story continued, "must be unmarried in order to enter the Organized Reserves. Married men above that rank will be accepted." Throughout 1947 and the first few months of 1948, the squadron spent its time filling its complement and in training activities.

In July 1948, Marine reservists from 10 squadrons, including 321, met at Marine Corps Air Station Cherry Point, North Carolina, in the first postwar mobilization for the Marine Reserve. Hell's Angels pilots flew 16 Corsairs while ground crews worked around the clock. The exercise was to demonstrate the capability of Marine Reservists in the eastern United States to mobilize within 24 hours. The Anacostia squadron was the first unit to reach its authorized strength for the exercise.

The squadron also accumulated the most flight hours, barely surpassing a New York squadron. To make sure of their top-squadron status, 321 flew from Cherry Point to Cape May, New Jersey, then south to Washington, equalling the distance the New York squadron had to fly to return home.

After returning from the 1948 maneuvers at Cherry Point, the Reservists discovered that their families were not covered if the Reservist was injured or killed during meetings. The lack of insurance benefits severely threatened the entire Marine Air Reserve Program. Congress came to the rescue by passing a bill sponsored by Senator Margaret Chase Smith (R-Maine). The commanding officer of 321, Major John E. Downs,

testified before the Senate Armed Services Committee, saying that few of his pilots would take their 15-day summer training (Active Training Duty, or ATD) unless Congress provided protection for their families.

On 1 April 1949, the Organized Marine Corps Reserve Fighting Squadron 321 was redesignated Marine Fighter Squadron 321. VMF-321 left Anacostia for Cherry Point for another two-week training period. Thanks to the benefits bill passed by Congress, and to the squadron's recruiting drive, 147 personnel, including 27 pilots, headed for North Carolina. Each pilot flew an average of 16.4 flights, accumulating 30 flight hours during the two weeks. In an indication of future events, Major Robert Kingsbury, the squadron commanding officer, and First Lieutenant John Murane were selected to begin checking out in the T-33A jet trainer, a two-seat variant of the Lockheed F-80 Shooting Star, the first American operational jet fighter.

The Navy soon had its own T-33s, designated the TO-1, and later TV-1. Eventually, a modified version with tailhook and revised canopy appeared, the TV-2. No one could have foreseen that this was only the beginning of a 30-year career with VMF-321 for the Lockheed trainer. The type's simple, dependable design allowed the two-seater to serve in a variety of duties, from instrument trainer to squadron hack, and even as an intercept bogie.

In August 1949, VMF-321 pilots flew 202.1 hours, but *not* in their own aircraft. The Naval Air Reserve Training Unit (NARTU) at Anacostia had taken the squadron's Corsairs to provide its own pilots with air-

craft for a two-week active duty period that included carrier qualifications. Meanwhile, the Marines came up with SNJ Texan trainers and used them for instrument training.

To achieve a greater degree of squadron efficiency, and to better use personnel and line facilities, the squadron decided, with MARTC's approval, to begin meeting on two consecutive days of the month instead of just one Saturday afternoon. The expanded schedule began on the weekend of 24-25 September 1949, and established the weekend schedule that continues to the present day.

During the weekend of 22-23 October 1949, in an effort to increase uniformity within the Reserve units at Anacostia, Marine Air Reserve Training Command ordered VMF-321 to begin transitioning to F6F Hellcats. The F4Us were transferred to other Reserve bases,

and familiarization lectures on the Hellcat were begun. By the end of October, the Marine Reserve pilots had logged 151.4 hours in their "new" aircraft. The F6Fs did not last long, for the Marines transitioned to the Grumman F8F Bearcat in late 1950.

The F8F was the last in a long, distinguished line of Grumman prop fighters. Many pilots considered the powerful little Bearcat the ultimate in piston-engine-powered naval aircraft. Intended for use in the late stages of the Pacific war, the Bearcat never got a chance to fly against the Japanese, and spent most of its Navy service in a few fleet and Reserve squadrons. The type's only combat came in the mid-1950s when the French used F8Fs against the Communist insurgents in Indochina. In fact, VMF-321 eventually gave up its Bearcats to the hard-pressed French, and transitioned back to its faithful Corsairs.

CHAPTER 3

Korea: Impact and Individual Member Service

Marine Fighter Squadron 321 was placed on "alert" status on 13 January 1951 because of the war in Korea, and was recalled to active duty on 1 March. The 164-man squadron, under Major George H. Robertshaw, began an intensive six-week training period at Cherry Point, and Marine Corps Air Station El Toro, near Los Angeles, California. Only 10 years earlier, the squadron had been going through the same training for deployment to the Pacific.

In any event, the squadron did not go to Korea as a unit. Rather, it was declared an augmentation unit, and its members were farmed out to fill vacancies in the fleet. Throughout the Korean War—even with its personnel scattered—VMF-321 remained homeported at Anacostia with one lone Marine on duty, until the squadron returned.

The 3 March 1951 edition of the *Washington Daily News* reported:

It will be El Toro, Calif., for most, and Cherry Point, N.C., for some, of Hell's Angels, Marine Air Reserve Fighting Squadron 321, who have been training since March 1 at Anacostia.

A member of VMF-321 walks along the Anacostia flight line which is filled with squadron AD-5N Skyraiders. The squadron retained its fighter designation until 1958.

The former weekend warriors will break up their squadron formation to become replacements for at least three of the 21 fighter groups in the Marine Corps. Reporting date is May 1.

Brig. Gen. W[illiam] O. Brice, USMC, commander of the Marine Air Reserve training, following a review and inspection at the air station yesterday, said that most of them will probably go overseas.

They will be eligible to apply for release to inactive duty within 12 months.

A few Hell's Angels saw heavy combat in Korea. Captain Warren York was killed during a night mission when his Corsair was hit by Communist antiaircraft fire on 29 October 1951. According to eyewitnesses, his aircraft crashed near Sachon-ni. Captain York had flown with VMF-211 during World War II. Captain George William Coles, another VMF-321 pilot, was also killed in action in Korea. He failed to return from his 115th mission over North Korea and on 20 May 1952 was listed missing in action. His status was changed to killed in action later in the year. First Lieutenant William Youngman, the squadron en-

Marine Corps Historical Collection





Marine Corps Historical Collection

LtCol Roy T. Spurlock relieves Maj G. Howard Robertshaw as commanding officer of VMF-321 on 18 July 1951. The undermanned strength of the squadron as a result of the Korean War is apparent in this all-hands turnout for the ceremony at NAS Anacostia.

gineering officer at Anacostia, also did not return from Korea.

As the Korean War drew to a close, the statistics and various reports on how well the Marine Air Reservists had done began filtering back. All 30 Reserve squadrons had been recalled on short notice, and all were integrated into Fleet Marine Force squadrons. By May 1951, 54 percent of the officers and 32 percent of the enlisted men in Korea were Reservists, and every third air strike was flown by a Marine Air Reservist.*

VMF-321 performed its 1951 active training at Anacostia in August. It was a good chance to get most of the pilots qualified in the F8F after checking out in SNJ. The squadron had six SNJs and three F8Fs available, and pilots flew 238 hours, with each pilot averaging 26.5 hours.

Following Korea, Marine Reservists were released from active duty and VMF-321 reformed at Anacostia. Major Roy T. Spurlock now commanded the squadron,

*The Naval Air Reserve's first big post-World War II test came also in Korea, and many Navy carrier air groups—indeed entire groups in some ships—included recalled Naval Air Reserve units. Their aircraft included both propeller-driven and jet types. Unlike the Vietnam War of a decade later, the American effort in Korea relied heavily on Reservists from every service.

and he quickly initiated another recruiting drive as he later recalled:

Having taken the personnel only, HQMC wanted to rebuild the squadron *in situ*, at NAS Anacostia, where the squadron designation had remained. In June 1951, I received a call from HQMC asking if I was interested in undertaking this task. On 18 July 1951, I assumed command of 321.

By 1953, the recruiting efforts of all hands, and particularly of the MARTD Commanding Officers Lieutenant Colonels Cornell, Ringblom, and Figley, had begun to pay off. We also had begun to receive some of the old squadron personnel back from Korea to help out.¹⁶

After Korea VMF-321 continued flying F8F Bearcats, the aircraft they had just before being recalled. As now retired Colonel Spurlock continued:

We were equipped with a real hot fighter, the Grumman F8F-1 Bearcat, although it was something of a hydraulic nightmare. Shortly after our 1953 training duty, we lost these aircraft on a hurry-up basis to the French Air Force in Indo-China. Many of these planes were lost in the battle for Dien-Bien-Phu. The French lost that battle and the war. These Bearcats had 2,250-hp engines on a small, light airframe, and they really gave you a boot when you shoved the throttle forward for takeoff. They were replaced at Anacostia by F4U-4 Corsairs, my old friends from my VMF-222 days overseas, and a Marine standby since 1943.¹⁷

VMF-321 traded in its faithful Corsairs, in July 1955, sending them to either the disposal grounds at Nor-



Marine Corps Historical Collection

Junior members of the Hell's Angels receive maintenance instruction for their AD-5 Skyraider. The joint Navy-Marines marking above the instructor's head indicates that the aircraft was used by both Marine and Naval Air Reservists, a common situation in the Reserves.

Hosting visits by local schools was an important recruiting tool. Local high school students receive a briefing from an Anacostia Marine Air Reservist beside a squadron aircraft.

Marine Corps Historical Collection



man, Oklahoma, or to Litchfield Park, Arizona. That same month, Lieutenant Colonel Edward Montgomery, the executive officer, relieved Lieutenant Colonel Spurlock. The replacement aircraft for the Corsair was the Douglas AD-5 Skyraider, a multi-seat version of the powerful AD, that brought a new mission to the Hell's Angels, as well as a new designation; on 15 May 1958, VMF-321 became Marine Attack Squadron (VMA) 321.

The annual cruise was spent at Naval Air Station New Orleans. On 28 July 1958, Major Elie G. Tremblay ditched in the Gulf of Mexico off the Mississippi coast while flying an AD-5 Skyraider from Cherry Point to New Orleans. He credited his safe water landing and recovery to the Marine Corps training he had received with VMA-321.

Besides transitioning to Skyraiders, the squadron also began putting more emphasis on community relations. In September, a new program, Toys For Tots,

began, and continues to the present day. The Marine Corps encourages the local community to contribute toys for area children for the Christmas season. Toys For Tots has been a great success and is run by various Marine Reserve units throughout the country.

In March 1959, another Marine squadron, VMA-236, was activated by MARTD at Anacostia. However, this new squadron lasted only three years, and was deactivated in September 1962, its members going to VMA-321. VMA-321 spent its 1959 annual active duty training at Cherry Point.

The squadron's 1960 training coincided with the East Coast Air-Ground Exercise at Camp Lejeune, North Carolina, from 30 July to 13 August. The operation consisted of an opposed field exercise by Marine Corps Reserve air and ground units. The mission included seizing and consolidating areas defended by aggressor forces. Close air support, supplied, in part, by VMA-321, and helicopter support were fully employed.

CHAPTER 4

Anacostia to Andrews: Props to Jets

On 30 April 1961, Lieutenant Colonel Carol Morris, the commanding officer of VMA-321, received the Fleet Admiral Ernest J. King Memorial Trophy for the best Reserve squadron at Naval Air Station Anacostia. The engraved bowl is now on display at Naval Air Facility Washington. Brigadier General Louis B. Robertshaw, Commander, Marine Corps Reserve Training Command, made the presentation during the annual inspection.

At this time, all Reserve activities at Anacostia were transferred to the new Naval Air Facility at Andrews Air Force Base, Maryland. The Department of Defense had actually announced the closing of Anacostia in April 1958 because of the growing congestion among the three major airfields: Anacostia, the Air Force's Bolling Field, and the civilian Washington National Airport. The Defense Department proposed moving activities at Anacostia and Bolling to Andrews by 1961. What actually spurred the closure was the TV-2. When one of the jet trainers landed at Anacostia, it was apparent that the station's runways were too short to accommodate jets, and could not be lengthened. Later, a target date of 1 June 1961 was established for the move to Andrews, but delayed construction schedules resulting from weather and design changes postponed the move. Meanwhile, VMA-321 continued flying from Anacostia.

VMF-321 had had an early exposure to jets in 1955. After arriving at Cherry Point for training, Major Spurlock was allowed to let one pilot fly the new aircraft. He chose Captain John R. Price, who returned from his flight filled with enthusiasm.

When the relocation to Andrews was completed on 19 October 1961, more than 1,500,000 pounds of equipment, 1,465 officers and enlisted men, and 132 aircraft had made the move. With longer runways available at Andrews, the squadron could now begin the transition to jets. By May 1962, it received the first of its FJ-4B Furies, and on 1 May, it was redesignated Marine Fighter Squadron 321. The Fury was a derivative of the famed North American F-86 Sabre series, and the dash-4 model had been considerably redesigned for naval use.

As the Furies entered service, beginning in May, the squadron spent May and June checking out in TV-2s. Originally, the Marine Air Reserve Training Command

planned for Grumman F9F Panthers to replace the Skyraiders, and had sent the squadron's commanding officer, Lieutenant Colonel Carol Morris, and Captain Stanley Frost to 2d Marine Aircraft Wing, MCAS Cherry Point for initial training at VMT-1, the East Coast F9F training squadron. Before the course was finished, however, MARTC selected the Fury instead. But, Colonel Morris and Captain Frost finished the course, with Morris logging 38.6 hours in the F9F.

In 1962, the Marine Air Reserve was organized into the 4th Marine Aircraft Wing (MAW) for mobilization purposes, and VMF-321 was declared a basic unit, and assigned to Marine Aircraft Group 42. VMF-321's annual training began in late July, with the entire squadron taking the opportunity to check out in the Fury. VMF-321 received the Marine Air Reserve Trophy for the outstanding Marine Air Reserve fighter squadron. Brigadier General Hugh M. Elwood, Command-

BGen Louis B. Robertshaw, left, Commanding General, Marine Air Reserve, presents the Fleet Admiral Ernest J. King Trophy to VMA-321 as the best of Marine and Naval Reserve units at NAS Anacostia to the Hell's Angels commanding officer, LtCol Carol W. Morris.

Photo courtesy of the *Washington Post*





Photo courtesy of Stephen Miller

The arrival of the Lockheed TV-2 highlighted the inadequacy of Anacostia's runways and the station's ability to handle jet aircraft. The Marine Air Reserve decided to move VMA-321, along with other Marine and Navy Reserve activities, to NAF Washington, D.C., a newly established tenant command on the east side of Andrews Air Force Base, south of the capital. This Anacostia TV-2 is shown in June 1959 with white-and-red markings.

Senior enlisted members of the squadron pose before one of their FJ-4B Furys, received in May 1962. Photographs of VMA-321 Furys are rare. In the front row, front left to right, are: MSgt James F. Lore, S-3 Division; MSgt H. C. Chrishkot; MSgt Esko E. Hallila, S-1 Division; and MSgt Robert C. Burns, Line. In the back, from left to right, are: MSgt John L. Hoover, Avionics; GySgt Irvin E. Sutphin, Line; GySgt Robert E. Crickenberger, Engineering; GySgt Paul F. Pfister, Jr., Line; and GySgt Paul L. Teffau, Jr., S-1 Division.

Marine Corps Historical Collection





Marine Corps Historical Collection

A number of the squadron's pilots pose in front of a FJ-4B at Andrews AFB in 1962. From left to right in the front row are: Maj Charles L. Mikelson, a future squadron commander, and Maj Jack Robbins, who also would command the squadron. In the back row, from left to right are: Capt Curtis J. Adkins; Capt Everard E. Hatch; Capt Robert D. Nolan; LtCol Carol W. Morris, squadron commanding officer; and LtCol Joel E. Bonner, Jr.

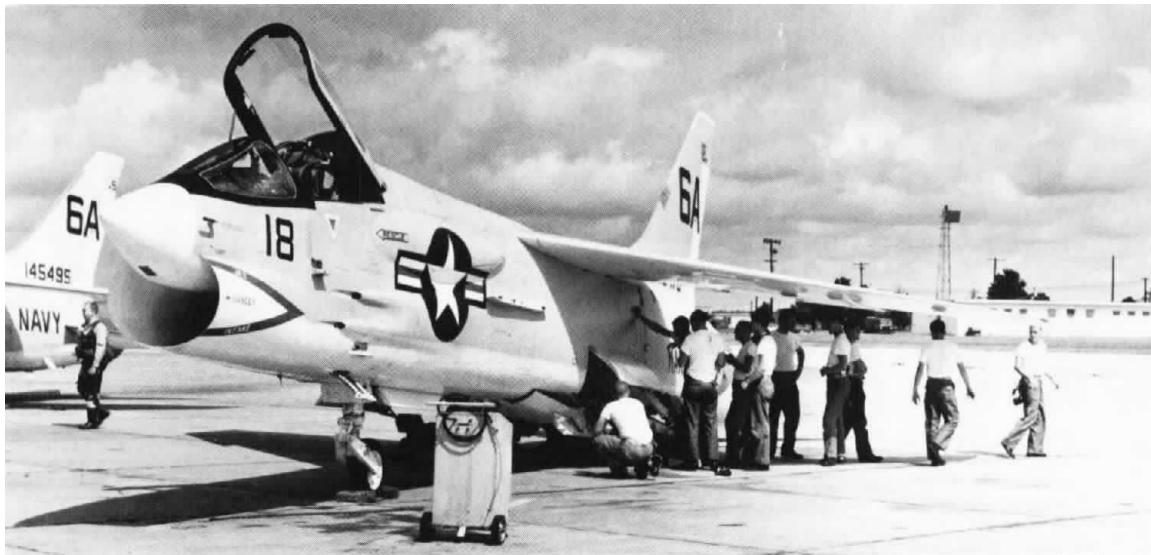
ing General, 4th MAW, made the presentation on 27 October 1963.

When the Marines moved to Andrews from Anacostia, they were accompanied by the Naval Air Reserve. In January 1965, the Naval Air Reserve Training Unit (NARTU) began its own transition from the Fury to the F-8 Crusader. The military designation system had changed in September 1962, and the FJ-4B became the AF-1E, and the F8U-1E became the F-8B. Nine of the 18 Crusaders went to MARTD and VMF-321. The squadron's first flight in the Crusader came on 12 January 1965.

To help those pilots who had little jet time, VMF-321 added two T-33B trainers. The F-8 Crusader gave the Marine Air Reservists a new outlook as they flew their supersonic fighters at speeds three times faster than their old F4U Corsairs. The squadron recorded its 1,000th hour in F-8s on 14 July 1965.

The Hell's Angels deployed to MCAS Beaufort, South Carolina, from 27 July to 7 August for their 1965 training. Flying their F-8s and T-33s, squadron pilots trained in air-to-air gunnery and inflight refueling. During the two weeks, the Washington Marines logged 483 hours in their F-8s, and 88.8 hours in their T-33s.

On 30 October, a Marine Reservist from 321 flew non-stop from NAS Jacksonville, Florida, to MCAS El Toro, California. After participating in combined air-ground exercises on 7 November, VMF-321 set another squadron record: the first non-stop overwater flight by the squadron. In Operation Ready One, a joint Navy-Marine aerial refueling exercise on 17 November, four VMF-321 pilots flew their F-8s from Andrews to NAS Roosevelt Roads, Puerto Rico. Marine Aerial Refueler Transport Squadron 252 from Cherry Point provided inflight refueling services.



Marine Corps Historical Collection

A squadron F-8B and its crew prepare for a mission during the squadron's 1967 annual training at Roosevelt Roads, Puerto Rico. By 1970, the F-8Bs were flown almost exclusively by Marine Air Reservists, Washington Naval Air Reservists having received other aircraft.

An aerial view of the ramp at Andrew's Hangar 14 taken in the early 1970s shows the hangar then occupied by the squadron. In addition to the F-8Ks of VMF-321, two T-33Bs can be seen. These trainers belonged to the squadron for proficiency and "bogey" work. Three C-118 transports and a station C-1 are on the left. The Washington Air National Guard hangar is located on the far right with an ANG C-131 and C-121 just visible.

Marine Corps Historical Collection





Photo courtesy of Col David W. Gould

Two F-8K Crusaders are pictured in 1973 when VMF-321 had taken the nickname "Black Barons." The pilot of MG-5 is Capt Thomas J. Billison and Capt David W. Gould flies wing.

The squadron's 1966 annual training was at Beaufort once again. Highlights included an aerial gunnery competition (Operation Fortnight). The squadron operated in a field environment, working from tents. Pilots logged 549 hours, and expended 15,000 rounds of 20mm ammunition. Sixteen pilots qualified in live Sidewinder missile firings using night flares as targets.

Four Hell's Angels pilots set another squadron record on 22 April 1967, during a regular drill weekend, when they flew non-stop from Andrews to NAS Miramar, near San Diego, in six hours. Major William L. Golemon, Captain Charles McLeran, Captain Everard E. Hatch, and Captain John B. Knight fought headwinds during the 2,107-nautical-mile flight which included a 45-minute aerial refueling period. The Air National Guard from Milwaukee, Wisconsin, provided aerial refueling support with KC-97 tankers. The Guardsman gave more than 32,000 pounds of fuel to the four Crusaders as they flew north of Kansas City, Missouri. The Crusader pilots returned to Andrews the following day, having flown a total of 4,849 miles.

From 12-25 August 1967, VMF-321 performed its active duty training at NAS Roosevelt Roads, Puerto Rico, conducting training in air-to-air gunnery, close air support, ground controlled intercepts, and over-water navigation. Squadron pilots logged 532 flight hours and expended 12,500 rounds of ammunition. However, Major John A. Wilson's death in an aircraft mishap darkened the training period. Another tragic note during this period was the forced retirement of Major Charles Mikelson, on 30 April 1968. Major Mikelson had taken command of 321 on 7 Septem-

ber 1966, but had contracted leukemia. He died on 9 November 1968.

The squadron performed its 1968 training at MCAS Yuma, Arizona, from 21 July to 3 August. Besides training in aerial gunnery, air-to-air missiles, air-to-ground rockets, close air support, and ground controlled intercepts, VMF-321 also conducted inflight refueling training. The squadron flew 522 hours and expended 2,800 rounds of 20mm ammunition, 47 Zuni rockets, and four Sidewinder air-to-air missiles. The total number of flight hours for 1968 was 2,777, with an average of 146 hours for each pilot.

On 17 August 1969, VMF-321 received the Pete Ross Aviation Safety Award, and the squadron was re-assigned to MAG-41. The 1969 active duty training was again performed at Yuma 2-16 August, with 14 F-8s. Air Guard KC-97 and Marine KC-130 tankers gave inflight refueling training support. Pilots flew 603.8 hours, and expended 5,211 rounds, 35 Zunis, and 11 Sidewinders. The year's totals were 2,933.6 hours, with an individual pilot average of 146.7. Major Bob Hamilton was the high-time pilot with 325.1 hours for the year.

VMF-321 suffered the loss of another aviator when Major Everard E. Hatch had a mid-air collision with another aircraft flown by Major Charles McLeran on 9 March 1970 during a weekend syllabus training flight. Major Hatch was one of the four pilots who had made the squadron's first non-stop cross-country flight three years earlier.

During the 1970 ATD at Yuma, a training readiness exercise was administered by the Marine Corps Reserve Training Detachment. The exercise consisted

of 26 sorties which were flown over a 24-hour period. The maneuvers were a success and helped familiarize squadron personnel with current operations in the fleet. VMF-321 logged 1,743 hours in 1970, with a pilot average of 110. Major Charles McLeran was high-time pilot with 168 hours.

The squadron had been flying the F-8L, a remanufactured F-8B featuring underwing pylons for ordnance. In November 1970, the transition began to the F-8K, a remanufactured F-8C. The aircraft complement was increased to 19 when Naval Air Reserve Training Unit gave up its fighters for RF-8Gs, the reconnaissance version of the Crusader.

A massive reorganization of the Naval Air Reserve resulted from its disappointing performance during the 1968 *Pueblo* crisis mobilization. The reorganization included the establishment of two Reserve carrier air wings which would mobilize as complete units instead of the individual squadron callups which had characterized the Reserves. VFP-206 and VFP-306 were commissioned at NAF Washington and received the RF-8G, a remanufactured RF-8A, freeing the F-8Ls and Ks for use by the Marines.

The squadron's 1971 training was at NAS Roosevelt Roads, with 14 F-8Ks, 16 pilots, 6 ground officers, and 125 enlisted men. Nearly 20,000 rounds of 20mm ammunition, 24 Zunis, 115 2.75-inch rockets, 10 Sidewinders, and 137 Mk. 76 practice bombs were expended during a total of 594 flight hours.

The war in Vietnam had a direct and negative influence on squadron recruiting and retention. VMF-321 hoped that its successful Toys For Tots program and increased community relations programs would reverse, or at least slow, the diving retention record. During "Transpo 72," a major airshow at Dulles International Airport during the 1972 Memorial Day Weekend, officer volunteers provided information on the Marine Corps Reserve Program, and the squadron provided an F-8K, in its striking black-and-white-stars markings, for static display.

Five squadron F-8s participated in a flyover during a parade in Georgetown, Delaware, on 9 November. The executive officer, Lieutenant Colonel James C. Boggs, Jr., narrated the flyover. Lieutenant Colonel Boggs assumed command of the squadron 10 days later, on 19 November.

CHAPTER 5

The Phantom Era

In March 1973, the squadron was reassigned to Marine Air Group 42. This year would also see the Hell's Angels say farewell to the Crusader and begin transition to the F-4 Phantom. However, the Marine Air Reservists continued flying their F-8s for the first portion of 1973. On 19 April, Captain David Gould ejected from his F-8K (145560) while on his first cross-country flight in the Crusader. Captain Gould had recently transferred from NAS South Weymouth, Massachusetts, where he had flown A-4s with Marine Air Reserve Squadron VMA-322. His aircraft's oil/hydraulic light lit and his oil pressure gauge soon showed zero. He tried to reach an airfield but was forced to eject at 2,500 feet after his engine seized. Captain Gould landed in the parking lot of a major North Carolina electrical-power-generating plant after avoiding high-tension wires. His aircraft came down in a farmer's field.

VMF-321 participated in a flyover, on 19 May, of the Georgetown section of the District of Columbia, and on 10 June, in honor of Flag Day, five squadron pilots flew their Crusaders over Fort McHenry, Maryland, the birthplace of the "Star Spangled Banner."

The squadron performed its 1973 training in August at MCAS Yuma, flying air-to-air gunnery training missions, including a final gunnery competition for F-8s. Air combat maneuver training with fleet squadrons at Yuma also contributed to the busy schedule. Other activities included a gas chamber exercise and

rifle range training. Nineteen non-swimmers also completed water survival training.

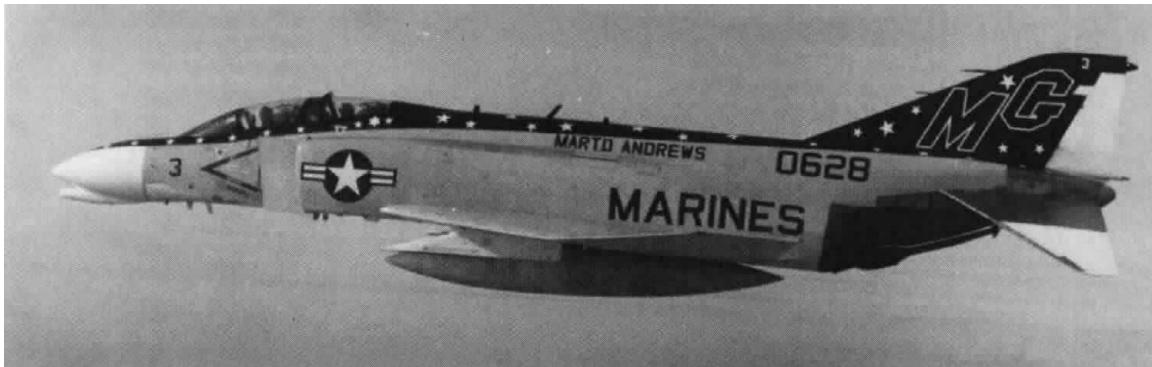
During the December drill, pilots, prospective radar intercept officers, and maintenance personnel received training on the Phantom. Journalist First Class Russ Egnor, a reporter for the NAF Washington base newspaper *NARTOPIX*, wrote that "every effort was made to acquaint personnel with the new equipment and to stress the importance of safety in and around the aircraft." The Phantom officially arrived on Sunday, 9 December 1973, as VMF-321 became the first Marine Corps Air Reserve squadron to receive the McDonnell Douglas fighter.

Captain Jonathan D. Foster flew the first F-4B (151449) to Andrews from NAS Oceana. With the arrival of 10 Phantoms, VMF-321 was redesignated Marine Fighter Attack Squadron (VMFA) 321. On 15 January 1974, the squadron flew its first flight in the Phantom, and on 26 February, Lieutenant Colonel James C. Boggs, Jr., the commanding officer, completed the first scheduled Phantom sortie by a Marine Corps Reservist.

The 1974 ATD to Yuma saw the first deployment with Phantoms, and all 10 F-4s were ready. During January 1975, the squadron deployed with eight aircraft for another two weeks at Yuma. This training was also a success and confirmed the suitability of the advanced aircraft for the Reserves. (The Naval Air Reserve was also transitioning to F-4s at this time.)

While the squadron's first F-4B Phantoms bore the initial black-and-white-star dorsal markings, VMFA-321's nickname remained the "Black Barons." As with most Reserve-squadron Phantoms, the centerline fuel tank was retained for normal operations.

Marine Corps Historical Collection





Marine Corps Historical Collection

The squadron's commanding officer, LtCol Glenn R. Hamilton, Jr., in the F-4 Phantom cockpit, talks with the Deputy Chief of Staff for Reserve Affairs, BGen Vincente T. Blaz.

Three squadron F-4Bs take their place on VMFA-321's flight line. The aircraft carry early markings and not the more complicated black-and-white-starred dorsal markings.

Photo courtesy of David Horner





Marine Corps Historical Collection

MG-3 receives attention from squadron maintenance personnel. The aircraft carries the traditional black-and-white-star markings used on the earlier squadron F-8K Crusaders.

The squadron decided to shift its normal active duty training period from the sweltering summer months to the cooler winter period. During the previous summer schedules, 321 had to cease operations from late morning to mid-afternoon, resulting in disruption of the daily flight schedule and operational efficiency. Squadron morale also benefitted from the schedule change.

In June 1975, five VMFA-321 Phantoms conducted dissimilar air combat training (DACT) with VMF-351 from Marine Corps Reserve Training Detachment Atlanta, which still flew Crusaders. In July, the Hell's Angels participated in a combined week-long exercise called "Silver Shadow." The exercise included 321's sister air control squadron, MACS-24, and air elements from other East Coast 4th MAW units. In the same month, VMFA-321 and VMF(AW)-112, the Dallas Marine Air Reserve squadron, still equipped with F-8s, participated in DACT, staging from Cherry Point.

VMFA-321 was involved in exercises throughout this period. In September, a detachment of U.S. Air Force F-106s from the 47th Fighter Interceptor Squadron (FIS) at Griffiss AFB visited Andrews for 10 days of training. In October, AV-8A Harriers from VMA-542 at Cherry Point arrived, while four VMFA-321 aircraft deployed to NAS New Orleans to fly with the F-106s of the 86th FIS from Sawyer AFB, Michigan.

In November, in addition to beginning the annual Toys For Tots campaign, 321 conducted two days of Field Mirror Landing Practice and Short Airfield for Tactical Support qualifications at Marine Corps Aux-

iliary Landing Field Bogue, North Carolina, near Cherry Point. The squadron also sent a detachment to NAS Jacksonville, Florida, for more DACT with AV-8As from VMAT-203, the Harrier training squadron at Cherry Point.

With the busy year nearly over, VMFA-321 requalified in inflight refueling with KC-130s from Marine Aerial Refueler Transport Squadron 234, a Marine Air Reserve squadron from NAS Glenview, Illinois, in anticipation of the upcoming ATD in Yuma in January 1976. Lieutenant Colonel Charles S. McLeran, one of the Crusader veterans, and now commanding officer of the squadron summarized the accomplishments for 1975:

The [squadron's] performance has proven the capability of the Reserve components to supplement the regular forces with an advanced weapons system. Maximum emphasis has been placed on mission-oriented flights and military occupational specialty training.¹⁸

In late June 1976, VMFA-321 became the first Marine Air Reserve Phantom squadron to fire a Sidewinder air-to-air missile, with VC-12, a Naval Air Reserve utility squadron from NAS Oceana, providing target services.

From 5-9 April, VMFA-321 deployed to the Air Force Defense Weapons Center at Tyndall Air Force Base (AFB) in Florida, to participate in a training exercise in air superiority tactics codenamed "College Dart." The 49th FIS's F-106 provided adversary aircraft for over 55 DACT sorties. The Washington Marine Reservists received a special letter of commendation



Marine Corps Historical Collection

*A rare view of a squadron black-nosed F-4B Phantom flying alongside a Canadian CF-5.
Marine Corps Air Reservists frequently exchanged visits with Canadian squadrons.*

from the Commandant of the Marine Corps for this highly successful exercise.

For the Armed Forces Day observance on 10 July, VMFA-321 provided an F-4 for a flyover of Hagerstown, Maryland, and one week later, the squadron traveled to Canadian Forces Base Bagotville, Quebec, Canada, to participate in Exercise Freedom Fighter. This exercise involved DACT with Canadian CF-5s.

In January 1977, 321 joined its Dallas sister squadron, VMFA-112, for a Sparrow missile shoot at NAS Point Mugu, California. This missile shoot, combined with an extensive dissimilar air combat training program with Canadian CF-5s, and Marine A-4s, highlighted an overall successful ATD.

One week after the successful missile shoot, 12 Hell's Angels crews went to Nellis AFB, Nevada, to participate in the Air Force's Red Flag 77-4, a highly successful series of exercises and scenarios that closely simulated combat conditions. The Marine Reserve F-4 crews flew in both escort and aggressor roles. As the squadron's reputation for going anywhere to provide DACT grew, requests began to come in for VMFA-321 crews to visit other squadrons and bases.

During two weekends in April 1977, F-100s from the Connecticut Air National Guard's 103rd Tactical Fighter Group visited Andrews. The Marine Reserve F-4s provided aggressor aircraft for the Guard's fighter-bombers, enabling 10 F-100 pilots to qualify in basic defense. During the same month, VMFA-321 began the first in a series of joint training exercises with the

Members of the squadron's ground crew adjust a Phantom's triple ejector rack before a training mission.

Marine Corps Historical Collection





Marine Corps Historical Collection

A North American F-100 Super Sabre of the Connecticut Air National Guard visits VMFA-321, which provided adversary services for many different squadrons. Although the F-100s were at the end of their careers, their pilots still benefitted from maneuver training.

1st Tactical Fighter Wing's F-15s. Six aircrews and 13 maintenance personnel deployed to Langley AFB, Virginia, to participate in a variety of DACT sorties. VMFA-321's Phantoms enjoyed a particularly high level of success against the F-15, the Air Force's newest fighter. The Marines also learned about fighting an adversary with higher thrust, lower wing-loading, and a superior weapons system.

June saw the establishment of Detachment A, Headquarters and Maintenance Squadron 41. Thirty active duty Marines from Marine Corps Reserve Training Detachment and 32 Marine Reservists from VMFA-321 were transferred to the new detachment, with Major Michael Fiorillo, Jr., as officer-in-charge. The unit's mission was to provide Intermediate Maintenance Aviation support for VMFA-321.*

*Later, in April 1982, H&MS-41 also took over the Marine Aircraft Support Detachment which had operated various aircraft at NAF Washington since 1966 to support the needs of the Headquarters Marine Corps staff. The newly augmented detachment flew the Beechcraft UC-12B, the military version of the civilian B-200 Super King Air.

In mid-July, five aircrews and 27 maintenance personnel went to Point Mugu for another missile shoot. This deployment was particularly challenging because several aircrews were able to fire AIM-9G Sidewinders at maneuvering targets. In all, three AIM-7E Sparrows, and six AIM-9G Sidewinders were fired.

August 1977 was a hectic month with VMFA-321 flying every weekend, and occasionally throughout the entire week. From 15-19 August, the squadron deployed eight aircraft and 14 maintenance personnel to Griffis Air Force Base, New York, for DACT against the 49th Fighter Interceptor Squadron F-106s. From 23-26 August, four aircrews, and three maintenance personnel, deployed to the Air National Guard base at Alpena, Michigan, for exercises against the F-100s of the 180th Tactical Fighter Group, Michigan Air National Guard.

Finally, from 28 August to 9 September, VMFA-321 provided four aircrews and two Phantoms to augment VMFA-112 at Dallas during that squadron's participation in exercise "College Dart" at Tyndall AFB. For the

remainder of the year, DACT sorties were flown periodically against Langley F-15s.

VMFA-321 closed out 1977 as one of the premier fighter squadrons in the Marine Corps. The exercises had become more realistic and demanding, while the Marine Air Reservists performed beyond expectations.

In January 1978, Marine Corps Reserve Training Detachment and VMFA-321 deployed 17 aircrews, six aircraft, and 39 regular and Reserve maintenance personnel to NAS Key West, Florida, to participate in fighter weapons, fighter intercept, inflight refueling, ground attack, and escort training missions with the "Gators" of VMA-142, another Marine Air Reserve squadron, from MARTD Jacksonville, flying A-4s. The NAS Oceana fleet aggressor squadron, VF-43, provided opposition aircraft, F-5s, T-38s, and A-4s. KC-130s from VMGR-234 provided inflight refueling services. VMFA-321 flew 96 sorties during this pre-Red Flag proficiency buildup.

The highlight of the year came when VMFA-321 went to Nellis in March for a three-week deployment to Red Flag. During the week prior to the departure for Nellis, the squadron's aircrews flew 66 hours while completing 38 multi-plane sorties against Air Force aggressor aircraft—F-5s from the 64th and 65th Fighter Weapons Squadron. Missions included 27 low-level ingress/egress pop-up ground attack sorties controlled by Marine OV-10s from El Toro. The main body of the squadron arrived at Nellis on 19 March.

For the next two weeks, fighter escort and area defense missions at desert-floor altitudes and maximum speed challenged the squadron aircrews who flew 130 sorties, logging 192 hours. Adverse weather, tanker aborts, and airborne flight lead changes, dramatical-

ly contributed to the realism of the exercises. Daily video-taped debriefs, followed by the random selection of aircrewmen who were "shot down" for the Search and Rescue portion, resulted in a noticeable improvement in technical and tactical use during the two-week period.

In April, VMFA-321 flew in a joint exercise with Marine Air Reserve pilots from VMA-131, MARTD Willow Grove, Pennsylvania. Later in the month, the Washington reservists provided close air support during Operation Pledge Keeper, a major air-sea-land joint-service assault at Rehobeth Beach, Delaware. In May, VMFA-321 sent six aircrews and three Phantoms to Pease AFB, New Hampshire, to provide support to the A-4 pilots of VMA-322, Reserve Training Detachment, South Weymouth, Massachusetts.

June included 45 sorties in support of the Langley F-15 squadrons, and a mini-College Dart exercise during which the Marine reservists logged 18 flight hours.

Two VMFA-321 aircraft deployed to K. I. Sawyer AFB to support the 87th Fighter Interceptor Squadron's training activities, as well as to Langley to support the 1st Tactical Fighter Wing in the Air Force's Operation Sea Hawk. During November 1978, VMFA-321 flew against Langley F-15s on two exercises. At Key West, the Marines flew against the Jacksonville A-4s, amassing 24 sorties and 34 flight hours. Inflight refueling and bombing missions were also conducted.

VMFA-321 had the last F-4B in naval service, number 152217. It made its last flight in early 1978 from Andrews to the Naval Air Rework Facility at NAS North Island, where it was converted to an F-4N. The Navy had previously begun a program called Project BeeLine to modify and update the remaining F-4Bs.

Two F-4Ns show the color scheme derived during the Bicentennial in 1976. The cerulean blue tail, white stars, and red devil's pitchfork remained for three years until Navy policy required adoption of low-visibility gray coloring and reduced use of individual markings.

Marine Corps Historical Collection



Designated F-4Ns, these early Phantoms' modifications included the AIMS system, data link, enhanced aeronautics, and structural strengthening to extend the airframe fatigue life.

The squadron traveled to MCAS Yuma in January for its 1979 training. Aircrews flew 134 sorties, including air-to-air and air-to-ground missions. Dissimilar air combat training was conducted against aircraft from VC-13, VMAT-102, VMA-231, and Canadian F-5s. During this ATD, the squadron expended 65,000 pounds of ordnance. Immediately following the Yuma ATD, eight F-4s and ten aircrews went to Nellis for Red Flag 79-3, where they flew 80 sorties and 130.5 flight hours.

An Inspector General visit took most of March, but April found the squadron heavily involved once again in flying. Thirty sorties were flown against the 27th Tactical Fighter Squadron from Langley, with 23 sorties involving electronic countermeasure support by Marine Tactical Electronic Warfare Squadron 2 EA-6Bs. July included a missile exercise, with 21 sorties and the firing of five AIM-7 Sparrows and four AIM-9 Sidewinders.

July also saw one of the worst mishaps in recent Marine Air Reserve history when two VMFA-321 F-4Ns collided near Twentynine Palms, California. The four aircrewmen ejected safely. Besides the routine close air support mission, the wingman, the commanding officer of the MARTD at Andrews, was also tasked with flying a *Time-Life* photographer in the rear seat. The mission had been cleared through Headquarters Ma-

rine Corps and the photographer had flown in many high-performance jets. Arriving only an hour before the flight, but *after* the main crew brief, he received a quick, individual brief. He also had a mixed assortment of Navy and Air Force flight equipment, and non-steel-toed flight boots.

After the mission portion of the flight, while the two Phantoms flew in loose formation, the photographer asked his pilot to make a canopy roll over the lead F-4 so that he could photograph the Marine aircraft against the desert floor. The pilot complied, beginning this impromptu, unbriefed maneuver at 17,000 feet. However, half-way through the roll, his aircraft brushed the second jet, sending both F-4s into uncontrollable spins. All four crewmen ejected and their aircraft were destroyed on impact with the ground.

The mishap generated discussion, especially the ramifications of performing unbriefed, dangerous maneuvers, even by an experienced pilot. Procedures for flying civilians were also reconsidered.

One interesting note concerned the Radar Intercept Officers (RIO) of the lead aircraft, CWO-4 Robert A. Waltzer, a combat-experienced crewman with 3,000 hours in the Phantom. After ejecting from his stricken aircraft, CWO-4 Waltzer, a skydiving enthusiast, used his chute's four-line release to steer clear of obstacles, one of the first times this new method of control had been used during an actual descent.

CHAPTER 6

The 1980s and Beyond

Part of the squadron's 1980 annual training at Yuma, from 25 February to 15 March, included participation in air-to-air exercises which were part of the annual Naval Reserve Fighter Derby. VC-13, the Naval Reserve A-4 squadron at NAS Miramar, simulated aggressor aircraft.

During the 1976 Bicentennial festivities, U.S. military aircraft displayed a large variety of appropriate color schemes and markings. VMFA-321's Phantoms were no exception, sporting striking cerulean blue vertical tails and dorsal spines with white stars. The complicated markings lingered long after the Bicentennial, but by 1980, the squadron's aircraft had been repainted in low-visibility grays and gray-blues. The greatly subdued schemes were part of a program to reduce the ease with which an adversary could see the brightly painted Navy and Marine aircraft.

Major Martin Plummer, now the commanding officer, said, "Even though painting aircraft reflects each squadron's individuality, the gray is the least visible for ACM [air combat maneuver]. The Bicentennial colors are gone, and it's back to a professional showing all around." The squadron flew to NAS Oceana in May to participate in an ACM exercise, then to Eglin AFB, Florida, for more ACM training against F-16s.

On 20 January 1981, VMFA-321 lost F-4N MG-10 (BuNo 153036) following a weapons-delivery training mission at Yuma. Now-Lieutenant Colonel Plummer,

and his radio officer, Lieutenant Colonel John A. Marshall, ejected after they lost control of their aircraft during their landing approach to Yuma. The F-4 sustained extensive damage when the Mk. 82 bomb they had released exploded under the aircraft during the delivery dive. Damage included the Phantom's utility hydraulic system and the loss of an engine. Lieutenant Colonel Plummer followed his RIO's ejection, but his seat's trajectory was parallel to the ground. His chute barely opened before he hit the surface, fortunately without sustaining injuries.

At one point, faulty bomb fusing was thought to be the cause of the mishap. Electrical fusing had been a problem in Vietnam, and the squadron stopped using electrical fuzes and retarded-opening bomb fins for the rest of the training. The characteristic Snake-eye fins were considered as possible culprits. They may have simply separated from the bomb, causing it to explode beneath the aircraft as the F-4 flew over the target.

Lieutenant Colonel Michael McGuirk, another long-time member of the squadron, relieved Lieutenant Colonel Plummer on 22 February. Lieutenant Colonel McGuirk's brother, Pete, was also a Marine aviator, and a one-time member of VMF-321, having flown F-8s in Vietnam, as well as at Andrews.

In June 1981, following depot maintenance (major overhaul) by Hayes International, a civilian contractor in Birmingham, Alabama, the wings of one of the

A squadron F-4N Phantom carries the transitional reduced-visibility markings of the early 1980s. The pilot and RIO are going through pre-start checks before a training mission.

Marine Corps Historical Collection





Photo courtesy of Col David W. Gould

Echoing the 1945 wartime photograph taken on the Barnes' flight deck, the Hell's Angels pose for a photograph on the squadron's 40th anniversary in 1983. LtCol David W. Gould, the squadron's commanding officer, is seated fourth from left in the front row.

Flying over Maryland's Chesapeake Bay shoreline, two Reserve F4N Phantoms show the changing color schemes as the Navy and Marines went to a low-visibility marking.

Marine Corps Historical Collection





Photo courtesy of McDonnell-Douglas
LtCol James McGovern receives his F-4 1,000-hour certificate from McDonnell-Douglas' Charlie Payne. At the time, LtCol McGovern, a Naval Academy graduate and former naval aviator, was an undersecretary of the Air Force. He later would become Secretary.

squadron's aging aircraft needed to be x-rayed. Squadron personnel conducting acceptance checks on one of the returned F-4Ns discovered a crack "big enough to slip a quarter through" in the aircraft's main wing spar. A check of the government contract revealed that Hayes did not have to inspect this portion of the F-4s, and, thus, was not responsible for repairing this area of the wing. All F-4Ns overhauled in this way needed x-ray inspections. Recertification of the squadron's aircraft required six months.

The F-4Ns were, it should be remembered, old F-4Bs with many cycles—takeoffs and landings. Each squadron Phantom had to undergo a wing-spar x-ray inspection with interim flight stress limitations—basically 4-G flight—restricting air combat maneuver training. Training emphasis shifted from the high-stress ACM environment to interception and ground attack.

From 13-26 February 1983, VMFA-321 and H&MS-41 operated from NAS Key West, serving as aggressors to various fleet and Reserve squadrons, including VF-101, VC-12, and VA-45. Taking command of the squadron during its annual training, Lieutenant Colonel David W. Gould commented: "The pace was quick, requiring crews to work around the clock to keep the birds ready. This operation helped our people experience the strain they can expect if called to combat. . . . The F-14s have more advanced systems than our F-4s, but the experience of our flight crews made up for any disadvantages."¹⁹

A second ATD at Yuma quickly followed from 11-26

March. The Washington Marine Reservists joined 86 active duty Marines for the deployment. VMFA-321 established a 97 percent sortie rate, dropping 133,500 pounds of ordnance, a record for the Hell's Angels. These back-to-back ATDs, along with other deployments, initiated what the squadron called a "Det String."

On 2-3 November 1983, VMFA-321 members participated in a 208-mile Marine Corps Birthday Run. The athletic event was also meant to be a tribute to the Marines who had died in the Beirut barracks terrorist bombing only two weeks before. Continuing its community relations program, the squadron also supported the Toys For Tots program which was then in its 42nd year. In 1983, VMFA-321 also conducted various squadron training schedules, including several exercises at Yuma and Miramar, and involving such regular "consumers" as the Air Force F-15 squadrons at Langley AFB.

During this time, VMFA-321 was part of a "Reserve command enhanced-responsibility experiment" devised by the Commanding General, 4th MAW, in New Orleans, the headquarters for Marine Reserve activities. (The Naval Reserve is also headquartered in New Orleans.) In February 1983, the Commanding General, 4th MAW, transferred aircraft custodial responsibility from several MAG/MAG Det units to the actual Reserve squadrons. However, not all 4th MAW squadrons were involved with this experiment. While the Naval Reserve uses Reservists on active duty—the TARs (Training and Administration Reservists)—the Marines use regular personnel to manage and administer the Reserve program for the Corps.

Lieutenant Colonel Gould, now the commanding officer of VMFA-321, saw an opportunity to implement the "Total Force Concept" of the Department of Defense through this experiment. He commented:

I felt that the most efficient way to effect this change would be to fully integrate all active duty and reserve personnel within our mobilization table of organization and function at all times within this structure.

For example, the squadron executive officer was the active duty site commander; the aviation safety officer and the maintenance officer were both active duty members. Continuity, efficiency, and morale improved noticeably. All assigned Marines, whether regular or reserve, wore the squadron insignia. VMFA-321 functioned in this manner under the new 4th MAW Commanding General until reserve squadron commander authority [fitness reporting and UCMJ Article 15 pertaining to active duty personnel] and legality surrounding JAG investigation convening authority surfaced as impediments to this command relationship. This, in effect, was responsibility without appropriate authority.

The Marine Corps Manual specifically limits a reserve

officer's authority in certain duty situations. Aircraft custody reverted to the traditional group detachment/squadron structure.²⁰

During 1984, three lieutenant colonels were allowed to remain on flying status with VMFA-321, although assigned to H&MS-41. One of these O-5s was Larry Richard, one of only three Marine Vietnam MiG killers. On 12 August 1972, then-Captain Richard teamed with Navy Lieutenant Commander Mike Etzel when both were on exchange duty with the Air Force. The two naval aviators flew an F-4E of the 58th Tactical Fighter Squadron and destroyed a North Vietnamese MiG-21 with an AIM-7 Sparrow air-to-air missile.

In recognition of its accomplishments, the squadron received the Marine Air Reserve Trophy (Herman-Ridder Award) as the top fixed-wing squadron in the 4th Marine Aircraft Wing in 1984. Besides beginning the transition to another aircraft, VMFA-321 had participated in, or hosted, several different exercises, ranging from week-long visits to Air Force and Navy bases around the country to at-home periods with visiting Air Force and Marine squadrons. In May, EA-6Bs from VMAQ-4, NAS Whidbey, visited Andrews to refine intercept, and radar and communications jamming techniques.

During a training mission in 1989, a VMFA-321 F-4S is refueled in flight by an Air Force KC-10.

Photo courtesy of SSgt Al Reed, USMC





Photo courtesy of Don Linn

Two F-4S Phantoms from VMFA-321 head out on yet another training mission in 1989.

The new model Phantom presented two challenges to the Hell's Angels: keeping the older F-4Ns in a mission-ready status throughout the transition, and ensuring a smooth transition to the F-4S. The squadron decided to emphasize air-to-air training because the pilots and RIOs would learn the F-4S' systems more quickly in that environment. An aggressive training program was established with two DACT detachments, one going to Oceana in September with four aircraft, and the second visiting Miramar in November with six aircraft. Coincidentally, the last F-4N in 321 retired on 30 November.

Lieutenant Colonel Gould, who had flown Phantoms in Vietnam with VMFA-314 and VMFA-122, remembered the first time he saw the F-4S in action:

Our crews were scheduled for a 1 v 1 [F-4N vs F-4S] ACM sortie as part of the transition syllabus. The improved performance of the F-4S was immediately apparent. I flew against Major Tom Nicholson, who had prior F-4S time. I was impressed as I watched him convert his position from defensive to offensive, with my aircraft at his 6 o'clock inside one-half mile. He took his F-4S through a loop beginning at 300 knots. I'd seen this maneuver before by low-wingloaded aircraft like the A-4, but not with such a high-wingloaded type as the F-4.²¹

As VMFA-321 completed its transition to the F-4S in 1985, it also flew the impressive number of 3,109 flight hours for that year, 110 percent of the originally scheduled program, and a 28 percent increase over 1984's total. One reason for the increased flight time was the large number of exercises and training missions with other squadrons, reflecting the Hell's Angels' commitment to ACM training.

Lieutenant Colonel Don Jackson relieved Lieutenant Colonel Gould in January. Lieutenant Colonel Jack-

son was the first Naval Flight Officer to command the Hell's Angels.

From 13-30 March, the squadron deployed to Nellis Air Force Base, Nevada, to participate in Green Flag 85-3. The Hell's Angels provided the majority of aerial opposition as they flew against sophisticated electronic countermeasure platforms and the full spectrum of surface-to-air threats on the Tonopah range.

Hurricane Juan put a damper on the squadron's visit to Tyndall AFB in October. Along with other Marine Air Reserve squadrons, VMFA-321 was supposed to participate in the Joint Chiefs of Staff exercise, Bold Eagle-86. Trips to the Canadian fighter base at Cold Lake, as well as regular ACM and inflight refueling training missions, combined to raise the flight hour total by the end of the year.

VMFA-321 maintained the high operational tempo in 1986 and 1987 by flying 2,917 hours and 2,944 hours, respectively. The squadron also participated in the regular series of exercises and visits with neighboring Navy, Marine, and Air Force squadrons across the country. Detachments visited NAS New Orleans in February, Nellis in March (where the F-4Ss flew against a wide variety of Navy and Air Force aircraft, as well as Royal Air Force Tornados), Oceana in May, and NAS Point Mugu, in addition to the regular training at Yuma.

On 15 January 1988, six squadron aircraft participated in a "Missing Man" formation flyover during the funeral at Arlington National Cemetery for Colonel Gregory "Pappy" Boyington, who died on 11 January. Boyington was one of the highest-scoring Marine aces of World War II. VMFA-321 also participated in Green Flag 88-3, a five-plane mini-det to Bagotville, Canada, and a two-week ATD in July to Roosevelt Roads. During the training period, 321 flew 132 sorties, ac-

cumulated 138.0 hours, and conducted a night missile-firing exercise. During 1989, VMFA-321 continued its high tempo operation with several deployments to Yuma, Fallon, Nellis, Oceana, and Canadian Forces Base Bagotville, Canada.

From its first action-filled days in the Pacific during World War II, through its transition from props to jets in the 1950s and 1960s, VMFA-321 established itself as one of the Marine Corps' finest fighter squa-

drons. VMFA-321 is a model for that unique brand of citizens, the Reservists, who serve double-duty as members of their individual communities, and as a redoubtable force of highly trained soldiers, ready for recall whenever their country needs them.

In the decade of the 1990s, featuring transition to the F/A-18 Hornet, the Hell's Angels have nearly 50 years of history to call upon as they perform their demanding and rewarding tasks.

Notes

CHAPTER 1 FORMATION AND WORLD WAR II COMBAT OPERATIONS

All items listed as contents of the VMFA-321 Comment File are available in the Reference Section, Marine Corps Historical Center, Washington, D.C.

1. Col Gordon H. Knott ltr to author, dtd 14Apr80 (VMFA-321 Comment File).
2. Ibid.
3. LtCol Robert Keim ltr to author, dtd 3Jun80 (VMFA-321 Comment File).
4. Ibid.
5. VMF-321 War Diary, Nov43.
6. VMF-321 War Diary, Dec43.
7. VMF-321 War Diary, Jan44.
8. LtCol Robert Keim ltr to author, dtd 3Jun80 (VMFA-321 Comment File).
9. Ibid.
10. USMC news release, 28Dec43.
11. USMC news release, 28Jan44.
12. Maj Justin Miller, Jr. ltr to author, dtd 6May80 (VMFA-321 Comment File).
13. *Puget Sound* (CVE-113) news release, 28Jan46.

CHAPTER 2 REBIRTH AS A RESERVE SQUADRON

14. Newspaper article, origin and date unknown, by Don Eddy, titled "America's Insurance For Peace . . . Sunday Fighter Pilots."
15. WMAL radio public service announcement, 16Sep46.
16. Col Roy Spurlock (CO, VMF-321, 18Jul51 to 31Jul55) personal ltr, 31Dec79.
17. Ibid.

CHAPTER 5 THE PHANTOM ERA

18. VMFA-321 Command Chronology, 1975.
19. Article in *Continental Marine*, March-April 1983.
20. Col David Gould ltr to author, dtd 9Oct89 (VMFA-321 Comment File).

CHAPTER 6 THE 1980s AND BEYOND

21. Col David Gould ltr to author, dtd 23Sep89 (VMFA-321 Comment File).

Appendix A

Chronology

1Feb43	Activated as Marine Fighting Squadron 321, Marine Aircraft Group 31, 3d Marine Aircraft Wing, Fleet Marine Force, at Marine Corps Air Station, Cherry Point, North Carolina.
19May43	Moved to Oak Grove Field, Pollocksville, North Carolina.
1Aug43	Assigned to MAG-31, 3d MAW.
1Sep43	Departed to the West Coast with MAG-31.
9Sep43	Arrived San Diego. Assigned to Marine Fleet Air, West Coast.
30Sep43	Departed the U.S. on the <i>Nassau</i> (CVHE-16) and USAT <i>Pueblo</i> for Pago Pago, Samoa.
6Oct43	Arrived American Samoa. Assigned to 4th Marine Air Base Defense Wing, FMF.
15Nov43	Embarked on the <i>Pocomoke</i> (AV-9) and assigned to MAG-12, 2d MAW, FMF.
20Nov43	Arrived Efate, New Hebrides.
24Mar44	Assigned to MAG-21, 2d MAW, FMF.
4Jun44	Assigned to MAG-21, 4th MABDW.
23Jun44	Embarked on FS <i>John Isaacson</i> . Moved to Espiritu Santo awaiting orders.
4Aug44	Moved to Guam on board the <i>Kwajalein</i> (CVU-98) and USAT <i>Sea Fiddler</i> .
10Nov44	4th MABDW, FMF redesignated 4th MAW, FMF.
17Dec44	Moved to Rota, Pagan Island. Began movement back to U.S.
4Jan45	Arrived San Diego.
9Jan45	Assigned to Marine Air Support Group 51, Marine Fleet Air, West Coast.
17Jul45	Embarked on the <i>Puget Sound</i> (CVE-113) for training.
15Sep45	Assigned to Marine Air Support Group 44, 3d MAW.
1Oct45	Embarked on the <i>Puget Sound</i> for Japan.
28Jan46	Decommissioned.
1Jul46	Reactivated as Marine Fighting Squadron 321, Marine Air Detachment, NAS Anacostia, D.C.
1Apr49	Redesignated as Marine Fighter Squadron 321.
15May58	Redesignated Marine Attack Squadron 321.
19Oct61	Relocated to Naval Air Facility Washington, D.C., Andrews AFB.
1May62	Redesignated Marine Fighter Squadron 321.
12Jan65	First flight in F-8B Crusader by VMF-321.
1Feb65	Assigned to MAG-42, 4th MAW.
1Mar69	Assigned to MAG-41, 4th MAW.
1Mar73	Assigned to MAG-42, 4th MAW.
9Dec73	Redesignated Marine Fighter Attack Squadron 321.
26Feb74	First scheduled F-4B flight by VMFA-321 Reservist.
1Oct79	VMFA-321 assigned to MAG-41, 4th MAW.
2Jun80	Assigned to MAG-41, Det A.
Jun81	After inspection revealed that squadron aircraft might have cracks in their wings, all VMFA-321 F-4Ns were limited to 4-G flight and 100-hour inspections.
30Nov84	Last F-4N retires from VMFA-321.
Dec85	Completing transition to the F-4S, VMFA-321 completes an annual total of 3,109 flight hours, a 28 percent increase over 1984's total of 2,248.

Appendix B

Commanding Officers

Maj Gordon H. Knott	1Feb43-28Sep43
Maj Edmund P. Overend	29Sep43-30Sep44
Maj Justin M. Miller, Jr.	10Oct44-21Mar45
Maj William P. Boland, Jr.	22Mar45-14Sep45
Maj Darrell D. Irwin	15Sep45-28Jan46
 Capt Halbert J. Keller.....	1Jul46-31Aug46
Capt Samuel G. Middleman	1Sep46-9Apr48
Maj John E. Downs	10Apr48-21Mar49
Maj Robert T. Kingsbury III	22Mar49-18Oct50
Maj George H. Robertshaw	28Oct50-18Jul51
 LtCol Roy T. Spurlock	19Jul51-31Jul55
LtCol Edward C. Montgomery	1Aug55-31Oct56
LtCol J. Hunter Reinburg	1Nov56-21Sep58
LtCol Thomas W. Furlow	22Sep58-17Sep60
LtCol Carol W. Morris	18Sep60-16Mar64
 LtCol Jack W. Robbins	17Mar64-6Sep66
Maj Charles L. Mikelson	7Sep66-30Apr68
Maj Charles E. Schwob	1May68-8Dec68
LtCol Bobby C. Goodman	9Dec68-12Dec70
LtCol Francis P. Frola	13Dec70-18Nov72
 LtCol James C. Boggs, Jr.	19Nov72-25Aug74
LtCol Charles S. McLeran	26Aug74-20Nov76
LtCol Glenn R. Hamilton, Jr.	21Nov76-3Mar79
LtCol Martin E. Plummer	4Mar79-22Feb81
LtCol Michael McGuirk	23Feb81-26Feb83
 LtCol David W. Gould	27Feb83-6Jan85
LtCol Dennis D. Jackson	7Jan85-27Jul86
LtCol Edward T. Timperlake	28Jul86-22Mar87
LtCol Nicholas Romah	23Mar87-25Jun89
LtCol Thomas J. Nicholson	26Jun89 -

Appendix C

Honors

AMERICAN CAMPAIGN STREAMER

ASIATIC-PACIFIC CAMPAIGN STREAMER WITH TWO BRONZE STARS

WORLD WAR II VICTORY STREAMER

NAVY OCCUPATION SERVICE STREAMER WITH "ASIA"

Appendix D

Squadron Insignia

VMFA-321 has used several insignias during its nearly five decades of existence. In keeping with the appropriated nickname "donated" by its first commanding officer, a former Flying Tiger, VMF-321 employed the insignia of the second of the American Volunteer Group's three squadrons, as well as its nickname, the Hell's Angels. The squadron's Corsairs carried this stylized angel (Figure 1) throughout their combat tour in the Pacific.

The angel's appearance varied during the combat tour, although the color scheme remained the same: a flesh-colored angel with white wings on a red field.



Figure 1.

However, although in use in the field, the insignia was never officially approved because, as stated in a 22 September 1944 memo, the insignia was not "in keeping with the dignity of the Service and employs red." Although the nude little angel could hardly have raised many eyebrows, the point about the color red was technically correct.

Immediately after Pearl Harbor, the red center disc in the national star insignia used by all Services had been deleted to prevent confusion with the Japanese Rising Sun insignia. This prohibition of red carried over to tail-striping and other forms of insignia. Even a late 1943 attempt to outline in red the star-and-bar insignia now in use was finally dispensed with. The horizontal red bar now a familiar part of the national insignia did not appear until 1948.

While it was too late to design a properly approved squadron emblem by the time VMF-321 returned to the United States, the unit tried again in late September 1944. Although a Chief of Naval Operations memo admonished VMF-321 to stay away from "ducks, cats, dogs, eagles, rabbits or women," as the new insignia's central figure, the Walt Disney studios came up with a "ferocious cat" design in 1945 (Figure 2).



Figure 2.

The California film studio had contributed several hundred squadron designs for all the services as part of its war effort. Indeed, a Disney artist had also created the famous insignia of the Flying Tigers, a winged tiger shredding a Japanese flag.

The premise of the new design was that the squadron flew the F6F Hellcat to which they had transitioned in early 1945 in preparation for serving on board aircraft carriers. The cat held a yellow and orange rocket in his left front paw, and a lighted black bomb in his right rear paw. He wore blue-and-black earphones while peering menacingly from atop a blue cloud.

To keep things business-like, Disney provided a "license" for use of the insignia for the "sum of One Dollar (\$1.00)" to the "United States Government, as represented by the Secretary of The Navy." The Navy approved the new insignia in August 1945, by which time the war was nearly over.

Revived as a Reserve squadron, VMF-321 did not have an approved insignia until 1957 which also noted the enlarged organization at NAS Anacostia, the Marine Air Reserve Training Detachment, Washington, D.C. The rather somber insignia (Figure 3) was apparently not very popular and was seldom seen.



Figure 3.

A new insignia was designed in 1971. As Lieutenant Colonel Francis P. Frola, the commanding officer, noted in his cover letter to the Chief of Naval Operations, "The Medieval Imperial Lion is symbolic of Fighting Power and Prowess. In addition, it represents the fiduciary relationship which traditionally binds Marine Fighting Men to Corps and Country."

The insignia was approved by the 4th MAW, and the appropriate division of Headquarters Marine Corps.

By 1974, as VMFA-321 transitioned to F-4B Phantoms, retaining the striking black-and-white-starred dorsal markings of their earlier F-8K Crusaders, and the lion emblem, the "Black Barons," as VMFA-321 had begun calling themselves, redesigned their emblem into a heraldic shield (Figure 4).



Figure 4.

However, while the squadron liked the new design, it was not officially approved because it had not been placed within the designated circle then in use, and the shield's scroll with the squadron name and number was not properly positioned.

The design was returned, and while the squadron put the insignia within a circle, and repositioned the scroll, there is no evidence that the redesign was sent to CNO for further action.



Figure 5.

Enthusiasm for a squadron emblem languished until the early 1980s when the current design, was approved, and the squadron restored its traditional nickname, the Hell's Angels. The current design uses a red devil's pitchfork rising from an appropriate bed of flames, girded by a golden angel's halo. The emblem is superimposed on a field of blue with white stars, with a white stylized aircraft swooping through the halo.

*A squadron insignia of VMFA-321 is shown
on the back cover. For a history of the insig-
nia and other illustrations see Appendix D.*

